

# NASA finishes X-34 contract with Orbital Sciences

NASA has completed its contract negotiations with Orbital Sciences Corp. to design, build and test-fly the X-34, a small, reusable technology demonstrator vehicle.

The 30-month contract with the Dulles, Va., firm is valued at approximately \$50 million. An additional \$10 million will be spent by NASA in direct support of X-34 by NASA centers and other government agencies.

NASA selected Orbital Sciences for the X-34 contract in June. The contract with OSC includes two powered flight tests scheduled to begin in the fall of 1998 at the JSC-man-

aged White Sands Missile Range, N.M., that will occur within a period of four months.

The X-34 is a single-engine rocket with short wings and a small tail surface. The vehicle is 58.3 feet long, 27.7 feet wide at wing tip and 11-1/2 feet tall from the bottom of the fuselage to the top of the tail.

The X-34 will be carried aloft and launched from an Orbital Sciences L-1011 aircraft at the White Sands Missile Range. It will complete the initial flights within the White Sands range air space and land at the facility's runway.

The fast-track X-34 program calls for demonstrating a vehicle that will be capable of flying at eight times the speed of sound and reaching an altitude of 250,000 feet. The vehicle will demonstrate low-cost reusability, autonomous landing, subsonic flights through rain, safe abort conditions, and landing in 20-knot cross winds.

NASA may exercise a contract option for up to 25 additional test flights, if required, during a 12-month period beginning immediately after the initial contract is complete. Flights would originate from either

White Sands or Kennedy Space Center. The Florida location would be used to test the X-34's subsonic flight capabilities in weather conditions such as rain, high cross winds and fog.

The X-34 program is one of three within the Reusable Launch Vehicle (RLV) technology program managed by Marshall Space Flight Center. The others are the subsonic Clipper Graham test vehicle and the Mach 15 X-33 advanced technology demonstrator, scheduled to begin flight demonstrations in early 1999. NASA centers and government

installations involved in the X-34 program include the Marshall, which is providing design and development of the vehicle's main propulsion system; Langley Research Center, which is conducting key aerodynamics testing in its wind tunnels; Ames Research Center, which is providing the thermal protection system for the X-34's leading edges and nose cap; JSC, which manages White Sands; the Army's White Sands Missile Range; Holloman Air Force Base, N.M.; and NASA's Dryden Flight Research Center, which is assisting with flight tests.

## Equal Opportunity appoints counselors

The Equal Opportunity Programs Office this week announced the appointment of new Equal Opportunity counselors at JSC.

The following employees will serve two-year terms in this collateral duty assignment:

Wanda Hobley, Office of the Chief Information Officer; Linda Riviera, Business and Information Systems Directorate; John Sims, Mission Operations Directorate; Rhonda Moore and Pamela Denkins, Engineering Directorate; Letti Fenner, Center Operations Directorate; Judy White, Space Shuttle Program; John Stanford, Safety, Reliability and Quality Assurance Office; Henry Orosco, Space Station Program Office; James Gooding, Space and Life Sciences Directorate; Milt Heflin, EVA Project Office; and Vernon Brown, White Sands Test Facility.

Employees may contact either the EOPO or any listed counselor to discuss concerns or issues based on sex, disability, age, color, national origin or religion. Counseling is a basic step in the discrimination complaint process and is available to all employees. Employees may request anonymity if they desire.

The counselor's role is to attempt to resolve EEO-related problems at the lowest possible level and in the shortest period of time.

## Exchange Council sets membership

The NASA Exchange Council recently announced its membership for the coming year. The Exchange is a government, nonappropriated-fund activity established to provide for services that contribute to the efficiency, welfare and morale of NASA personnel.

The following members of the Exchange Councils are responsible for reviewing the Exchange operations and providing recommendations regarding the policies, organization, scope of activity, rules and business practices, through January 1997:

Chairman, Harvey Hartman; Employee Activities Association President, Virginia Gibson; EAA Executive Vice President, Ann Patterson; EAA Vice President, Athletics, Guy King; Treasurer, John Beall; Secretary, Cynthia Draughon; Operations Manager, Teresa Sullivan; Alternate Manager, Curtis Collins; Legal Adviser, Daniel Remington; and members Debra Johnson, Gloria Demers, James Shannon, Lili Moore, Richard Thorson, Lee Pagel, John Arnold and William Langdoc.

The members of the White Sands Test Facility's NASA Exchange Council are: Chairman, James Powell; Treasurer, David Amidei; Secretary, Pleddie Baker; and members Troy Estes and Larry Linley.

## Survey seeks employee opinions

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munication throughout the agency. The results obtained from the 1996 survey responses will be available on the Internet at: <http://www.hq.nasa.gov/office/codez/cip.html>

The 1996 survey packets, containing a cover letter discussing the survey's importance and objectives, the survey form and a pre-addressed return envelope, were delivered last week. The survey takes 10-15 minutes to fill out, and is designed to ensure that individual

employees responding to the survey cannot be identified. This year, 7,405 employees are being randomly selected from the agency's personnel records as maintained in the Personnel Management Information System. The sample size has been calibrated to provide statistically valid results at both the center level and the agency level with a response rate of 55 percent. However, the higher the response rate, the more accurate the results will be concerning the views of the workforce.



A composite image taken from NASA's ER-2 aircraft providing support to forest firefighters shows the smoke pall over an area near Clear Lake, Calif., labeled the "Fork fire," on Aug. 22. At the bottom of the image is Indian Valley Reservoir. The fire, which at one time encompassed 80,000 acres, has been brought under control partially because of NASA's help.

## NASA aids California firefighters

NASA engineers are working with the California Department of Forestry to make the latest in NASA high-tech information technologies readily available to California fire fighters in their efforts to control the state's wildfires.

The experimental program involves the use of an ER-2 aircraft to provide fire fighting personnel in the field with immediate access to real-time imagery using inexpensive off-the-shelf hardware and the Internet. The aircraft, based at Ames Research Center, flies over a target fire at a height of approximately 60,000 feet equipped with sensors that provide imagery in natural color, color infrared and the thermal region. The imagery yields valuable up-to-the-minute information on fire boundaries, hot spots and fire activity.

"From a preliminary review of the images, they allow us to see fires from a perspective that we just don't have on the ground," said Richard Schell, deputy chief of operations support for the CDF's Fire Protection Headquarters section. "Using the thermal imagery, we can see through the smoke, we can view inaccessible areas, we can see old burns, active fires, boundaries and hot spots, and we can view it all in real time. We are always looking for another way to view the fire situation," he said. "This gives us a valuable new weapon in our fire-fighting toolbox."

The ER-2 and other NASA aircraft have assisted with fire information activities and engaged in experimental fire fighting programs in the past. The difference on this occasion is that the high altitude ER-2 is

equipped with the latest in communication technologies, a Satellite Telemetry and Return Link (STARLink) system, that relays the information in real time back to anyone with Internet access. In this way, firefighting personnel, even those in the most inaccessible locations, can get a precise, up-to-the-minute picture of fire activity, location and spread.

On Aug. 22, the ER-2 aircraft conducted the first successful operational demonstration of the new STARLink system. The vehicle flew over the Fork fire region near Clear Lake, Calif., where an active wildfire had consumed almost 80,000 acres. For the first time, CDF personnel were able to view the fire imagery as it was collected—both at their remote Incident Command Center and at various headquarters and intelligence facilities around the state. They were tremendously impressed with the quality and timeliness of the imagery, and excited about the implications of this technology for strategic fire management.

"For the first time, we were able to pull it all together," said John Arvesen, Chief of the High Altitude Missions Branch at Ames. "The flight and the overall system were successful beyond our wildest expectations."

Access to information about the ER-2 experimental fire fighting program and the STARLink system are available via the Internet at the following Internet address: <http://hawkeye.arc.nasa.gov>

This site also has a complete record of all imagery recorded on the recent ER-2 flights.

## JSC inks new policy on use of information technology, computers

JSC's Human Resources Office this week released a new center Policy on the Use of NASA Information Technology Resources that provides employees with guidance on how to best use these important tools and how to best avoid misuse.

Information Technology (I/T) devices such as computers, networks, electronic mail, computer fax and other electronic information transfer devices that have become increasingly important tools for communication, research, and other work at JSC, the policy states. Employees and contractors are encouraged to continue to learn about and use these valuable assets to help accomplish their work but are cautioned that, like all other forms of government property, JSC I/T resources are provided only for official business.

The official policy announcement (JSCA96-072), includes overall direction on the use of I/T, such as:

- Use common sense and good judgment when using the Internet. This resource is provided only for official business. When you use the Internet, you leave an electronic "footprint" wherever you go. Any message you send is electronically signed by you and placed in an "electronic envelope" with NASA's name on it. On the Internet, you are NASA.
- Never use your computer to receive, store, display or transmit sexually explicit images, messages, or cartoons, or send messages that contain ethnic slurs, racial epithets, or anything that may be construed as a threat, harassment, or disparagement of others.
- Protect JSC computer resources: Change your password periodically and never share it with anyone. Prevent the spread of computer viruses by always checking diskettes and downloaded software for viruses before executing them on a JSC computer system.
- Although JSC I/T is to be used for official NASA business, there is an exception for infrequent personal use. Specifically, when communications cannot reasonably be made during non-business hours, employees may send and receive brief messages with a spouse or dependent. The same applies to communications with local government agencies, physicians or dentists; or for emergency situations such as critical repairs to a residence or vehicle.
- There is no personal expectation of privacy. Information in JSC computers may be reviewed by managers, supervisors, and other authorized individuals at any time. Additionally, Internet activity at JSC is recorded and periodically examined for security and policy compliance purposes.
- Like other forms of misconduct, misuse of JSC I/T resources is grounds for disciplinary action.

For additional information, contact your supervisor, your Human Resources representative at x36251, the Chief Information Officer at x32700, or the JSC Computer Security Manager at x37615.

## JSC pays travel money with electronic transfers

Many JSC employees already receive their paychecks by electronic fund transfers, and now that method of money movement is being extended to official government travel.

The move to electronic transfers took effect in July in accordance with the President's signing of the Debt Collection Improvement Act of 1996. This act mandates the use of electronic funds transfer for all federal payments, including travel and expense reimbursements.

John Beall, deputy Chief Financial Officer for finance, said his organization is asking JSC employees to provide a financial institution and account information where they can receive electronic payments for travel and expense reimbursements.

To make this happen, employees should complete the "Electronic Funds Transfer Form For Travel and Expense Reimbursement" and return it no later than Sept. 10 to the LF341/Travel Claims. If this form is not submitted, employees who receive reimbursements will have them sent to the same institution and account specified in their payroll information.

Employees who do not have a bank account may request a waiver by certifying, in writing, to LF/Deputy Chief Financial Officer for Finance, that they do not have an account. For more information regarding EFT call Deborah Conder at x35805.

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